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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,860	11/21/2003	Shinji Kokubo	026304-0213	2934
23392 7590 09/20/2007 FOLEY & LARDNER 2029 CENTURY PARK EAST SUITE 3500 LOS ANGELES, CA 90067			EXAMINER KURR, JASON RICHARD	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 09/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/719,860

Applicant(s)

KOKUBO, SHINJI

Examiner

Jason R. Kurr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/21/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Saunders (US 4,933,921).

With respect to claim 9, Saunders discloses an electronic apparatus in which a speaker unit (fig.2 #22) is detachably mounted, comprising: a main body (fig.2 #9) in which the speaker unit is detachably mounted; a connector (fig.3A-C #33) arranged in said main body and which electrically connects with said speaker unit when said speaker unit is mounted in said main body; a wireless communication unit (fig.1 #20,21); and a communication controller (fig.1 #16) which transmits an audio digital signal through one of said connector and said wireless communication unit (col.3 ln.51-68).

With respect to claim 11, Saunders discloses a speaker unit, comprising: a wireless communication unit (fig.1 #22,23) which receives an audio digital signal over a wireless connection; a connector (fig.3A-C #33) which receives the audio digital signal over a wired connection; a D/A converter coupled to said wireless communication unit and said connector (fig.1 #25, col.2 ln.42-45, "It is implied that the processor #25 must convert a received digital signal to an analog signal prior to being reproduced by

speaker #27"); and a speaker (fig.1 #27) coupled to said D/A converter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders (US 4,933,921) in view of Zablocki et al (US 6,731,761 B1).

With respect to claim 1, Saunders discloses an electronic apparatus comprising: a main body (fig.2 #9); a speaker unit (fig.2 #22) detachably connected to said main body, said speaker unit having a speaker (fig.1 #27), a first wireless communication unit (fig.1 #23,24), and a D/A converter (fig.1 #25, col.2 ln.42-45, "It is implied that the processor #25 must convert a received digital signal to an analog signal prior to being reproduced by speaker #27"); a second wireless communication unit (fig.1 #20,21) which transmits an audio digital signal to the first wireless communication unit over a wireless channel; and a controller (fig.1 #16) which actuates said second wireless communication unit to transmit the audio digital signal to the first wireless communication unit when said speaker unit is not installed in said main body (col.3 ln.51-63), wherein the D/A converter converts the audio digital signal received by the

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first communication unit to an audio analog signal, and the speaker outputs sound on the basis of the audio analog signal (col.3 ln.64-68).

Saunders does not disclose expressly a detector, which detects whether or not said speaker unit is installed in said main body.

Zablocki discloses an electronic apparatus wherein wireless speakers (fig.3 #20) may be either attached through a wired connection or detached through a wireless connection to a main body (fig.3 #16). The type of wired/wireless connection changes according to the physical attachment status of the speaker to the main body (col.2 ln.61-67).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to automatically switch the means of transmission (i.e. wired or wireless) of Saunders upon the detection of the removal of the speaker units such as the automatic switching of Zablocki.

The motivation for doing so would have been to provide a foolproof system that does not require a user to manually switch between the means for audio transmission to the speakers.

With respect to claim 2, Saunders discloses an electronic apparatus according to claim 1, wherein said main body includes a connector (fig.3A-C #33) to be electrically connected to said speaker unit, and said controller operative for transmitting said audio digital signal to the D/A converter in said speaker unit by way of said connector when said speaker is connected to said main body by said connector (col.4 ln.29-42).

With respect to claim 3, Saunders discloses an electronic apparatus according to claim 1, wherein said speaker unit includes: a second detector which detects whether or not said speaker is installed in said main body ("It is implied that the speaker units #22 of Saunders are capable of detecting when an outside source of power is being utilized so as to bypass the built in battery"); a battery; and a power supply controller which supplies electric power from said battery to the first wireless communication unit when said second detector does not detect that said speaker unit is installed in said main body (col.5 ln.13-30).

With respect to claim 4, Saunders discloses an electronic apparatus according to claim 3, wherein said power supply controller stops supplying electric power to the first wireless communication unit when said second detector detects that said speaker is installed in said main body. It is implied that power being supplied to the wireless transmitter is not necessary when the speakers are attached to the main body because the transmission is automatically switched through the wired connection.

With respect to claim 5, Saunders discloses an electronic apparatus according to claim 3, wherein said power supply controller charges said battery by the electric power supplied from said main body when said second detector detects that said speaker unit is installed in said main body (col.5 ln.13-30).

With respect to claim 6, Saunders discloses an electronic apparatus according to claim 3, however does not disclose expressly wherein said speaker unit includes: a status detector which detects the remaining power of said battery; and a status notification unit which provides a notification of the remaining power of said battery

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detected by said status detector. Official Notice is taken that it is well known in the art to provide battery status indicators on electronic devices. At the time of the invention it would have been obvious to a person of ordinary skill in the art, to use a battery status indicator to depict the remaining power of the batteries within the wireless speakers of Saunders. The motivation for doing so would have been to alert a user when a battery recharge is needed.

With respect to claim 7, Saunders discloses an electronic apparatus according to claim 1, wherein said speaker unit includes: a status detector which detects the communication status of wireless communications of the first wireless communication unit; and a status notification unit which provides a notification of the communication status detected by said status detector. As presented in the rejection of claim 3 above it is implied that the speakers of Saunders are capable of detecting the connection state (i.e. wired or wireless) in order to derive power from an appropriate source.

With respect to claim 8, Saunders discloses an electronic apparatus according to claim 1, wherein said main body includes: a power supply controller which supplies electric power to said speaker unit when said main unit receives power from an outside power source, and which does not supply electric power to said speaker unit when said main unit does not receive power from the outside power source (col.5 ln.13-30).

With respect to claim 10, Saunders discloses an electronic apparatus according to claim 9, further comprising: a communication controller (fig.1 #16) operable for transmitting the audio digital signal through said connector when said detector detects that the speaker is mounted in said main body, and for transmitting the audio digital

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signal through said wireless communication unit when said detector does not detect that the speaker unit is mounted in said main body (col.3 ln.2-9).

Saunders does not disclose expressly a detector, which detects whether or not said speaker unit is installed in said main body.

Zablocki discloses an electronic apparatus wherein wireless speakers (fig.3 #20) may be either attached through a wired connection or detached through a wireless connection to a main body (fig.3 #16). The type of wired/wireless connection changes according to the physical attachment status of the speaker to the main body (col.2 ln.61-67).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to automatically switch the means of transmission (i.e. wired or wireless) of Saunders upon the detection of the removal of the speaker units such as the automatic switching of Zablocki.

The motivation for doing so would have been to provide a foolproof system that does not require a user to manually switch between the means for audio transmission to the speakers.

With respect to claim 12, Saunders discloses a method for outputting an audio digital signal from an electronic device (fig.2 #9) to a speaker unit (fig.2 #22) detachably installed in the electronic device, the electronic device and the speaker unit operative for wireless communication with each other over wireless connection (col.4 ln.29-42), comprising: transmitting an audio digital signal to the speaker unit through the wireless

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connection when it is detected that the speaker unit is not installed in the electronic device (col.3 ln.2-9).

Saunders does not disclose expressly a detector, which detects whether or not said speaker unit is installed in said main body.

Zablocki discloses an electronic apparatus wherein wireless speakers (fig.3 #20) may be either attached through a wired connection or detached through a wireless connection to a main body (fig.3 #16). The type of wired/wireless connection changes according to the physical attachment status of the speaker to the main body (col.2 ln.61-67).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to automatically switch the means of transmission (i.e. wired or wireless) of Saunders upon the detection of the removal of the speaker units such as the automatic switching of Zablocki.

The motivation for doing so would have been to provide a foolproof system that does not require a user to manually switch between the means for audio transmission to the speakers.

With respect to claim 13, Saunders discloses a method for outputting an audio digital signal according to claim 12, further comprising transmitting an audio digital signal to the speaker unit by way of a connector (fig.3A-C #33) electrically connected to the speaker unit when it is detected that the speaker unit is installed in the main body (col.4 ln.29-42).

With respect to claim 14, Saunders discloses a method for outputting an audio digital signal according to claim 12, further comprising supplying electric power for the wireless communication from a battery of the speaker unit when it is detected that the speaker unit is not installed in the electronic device (col.4 ln.43-47).

With respect to claim 15, Saunders discloses a method for outputting an audio digital signal according to claim 14, further comprising stopping the supply of electric power supply for the wireless communication from the battery when it is detected that the speaker unit is installed in the electronic device. It is implied that power being supplied to the wireless transmitter is not necessary when the speakers are attached to the main body because the transmission is automatically switched through the wired connection thus the power is stopped.

With respect to claim 16, Saunders discloses a method for outputting an audio digital signal according to claim 14, further comprising: determining whether or not said electronic device receives electric power from a battery within said electric device and an outside power source connected to said electronic device; and charging the battery with the electric power supplied from the electronic device when it is detected that the speaker unit is installed in the electronic device and the electronic device receives the electronic power from the outside power source (col.5 ln.13-30).

With respect to claim 17, Saunders discloses a method for outputting an audio digital signal according to claim 12, further comprising detecting the communication status of the wireless communications in the speaker unit, and providing an indication of the detected communication status. It is implied that the speakers of Saunders are

capable of detecting the communication status (i.e. wired or wireless) in order to derive power from an appropriate source, such as from the internal battery of the speaker or from a power source in the main body (col.4 ln.37-47).

With respect to claim 18, Saunders discloses a method for outputting an audio digital signal according to claim 12, further comprising detecting in the electronic device that electric power is supplied from a commercial power source to said electronic device, and supplying electric power to the speaker unit the electronic device when the electric power is supplied from the commercial power source to the electronic device and it is detected that the speaker unit is installed in the electronic device (col.5 ln.13-30).

With respect to claim 19, Saunders discloses a method for outputting an audio digital signal according to claim 18, however does not disclose expressly further comprising stopping supplying the electric power to the speaker unit when the electric power is not supplied from the commercial power source even though it is detected that the speaker unit is installed in the electronic device. Official Notice is taken that rechargeable batteries draw power from commercial power sources of the attached main unit, not the battery of the main unit. At the time of the invention it would have been obvious to a person of ordinary skill in the art to make the rechargeable batteries of the speaker units of Saunders only draw power from a commercial source of the main unit. The motivation for doing so would have been to preserve the battery of the main unit of Saunders so as the wireless speakers will not drain this battery power when the main unit is not plugged into a commercial source.

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With respect to claim 20, Saunders discloses a method as recited in claim 19 further comprising supplying electric power to operate said speaker unit from a battery installed in said speaker unit (col.4 ln.43-47).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Freadman (US 5,481,616) discloses a plug-in sound accessory for portable computers.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Kurr whose telephone number is (571) 272-0552. The examiner can normally be reached on M-F 10:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 273-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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